

**REMARKS**

**I. Formalities**

As a preliminary matter, Applicant notes that page 5 of the grounds of rejection includes a reference to “see rejection above under 35 U.S.C. 112, second paragraph.” However, Applicant notes that the 03/13/07 Office Action does not include any rejections under 35 U.S.C. § 112. Thus, Applicant assumes that this reference to rejections under 35 U.S.C. § 112 is a typographical error.

**II. Status of the Application**

Claims 13, 14, 16 and 29-34 are all the claims pending in the Application. Claims 13, 14, 16 and 29-34 have been rejected.

The present Amendment addresses each point of rejection raised by the Examiner. Favorable reconsideration is respectfully requested.

**III. Objections to the Specification**

The Examiner has objected to the specification alleging that the limitation on thickness (claim 33), albeit disclosed as original claim language (claim 12), should be explicitly recited in the remainder of the Specification. Applicant has corrected the informalities noted by the Examiner by amending the specification as set forth in the enclosed Appendix. Accordingly, Applicant respectfully requests that the Examiner withdraw these objections.

**IV. Claim Rejections - 35 U.S.C. § 103**

The Examiner has rejected claims 29, 16, 33 and 34 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Applicant's admitted prior art (hereinafter "APA") in view of Japanese Patent Application No. 2003-017502A to Nakamura (hereinafter "Nakamura"). The Examiner has also rejected claim 13 under 35 U.S.C. § 103(a) as allegedly being unpatentable over APA and Nakamura as applied to claim 29 above, and further in view of U.S. Patent No. 5,757,050 to Adler et al. (hereinafter "Adler"). Moreover, the Examiner has rejected claim 14 under 35 U.S.C. § 103(a) as allegedly being unpatentable over APA and Nakamura as applied to claim 29 above, and further in view of U.S. Patent No. 6,507,069 to Zhang et al. (hereinafter "Zhang"). The Examiner has rejected claim 30 under 35 U.S.C. § 103(a) as allegedly being unpatentable over APA and Nakamura as applied to claim 29, and further in view of U. S. Patent No. 5,053,849 to Izawa et al. (hereinafter "Izawa"). Further, the Examiner has rejected claims 31-32 under 35 U.S.C. § 103(a) as allegedly being unpatentable over APA and Nakamura as applied to claim 29, and further in view of U.S. Patent No. 6,048,795 to Numasawa et al. (hereinafter "Numasawa"). Finally, the Examiner has rejected claim 33 under 35 U.S.C. § 103(a) as allegedly being unpatentable over APA and Nakamura as applied to claim 29 above, and further in view of U.S. Patent No. 5,914,498 to Suzawa et al. (hereinafter "Suzawa").

Applicant respectfully traverses these rejections for *at least* the reasons set forth below.

The grounds of rejection allege that the electrode 17 taught in Nakamura corresponds to a "gate electrode," as recited in claim 29. Applicant respectfully disagrees.

The electrode 17 taught in Nakamura cannot possibly correspond to a gate electrode because the electrode 17 does not overlap the channel region. In fact, there is no description

whatsoever in the cited Nakamura reference suggesting that the electrode 17 is a gate electrode, as claimed.

One of ordinary skill in the art would readily discern that the names of the terminals in a transistor refer to their respective functions. For example, a gate electrode may be thought of as controlling the opening and closing of a physical gate in the channel between source and drain regions. That is, the term “gate electrode” has a particular technical meaning. However, since the electrode 17 in Nakamura does not face the channel region, Nakamura’s electrode 17 cannot solely control the opening and closing of a physical gate. Therefore, Nakamura fails to teach or suggest all the recitations of claim 29 for *at least* these reasons.

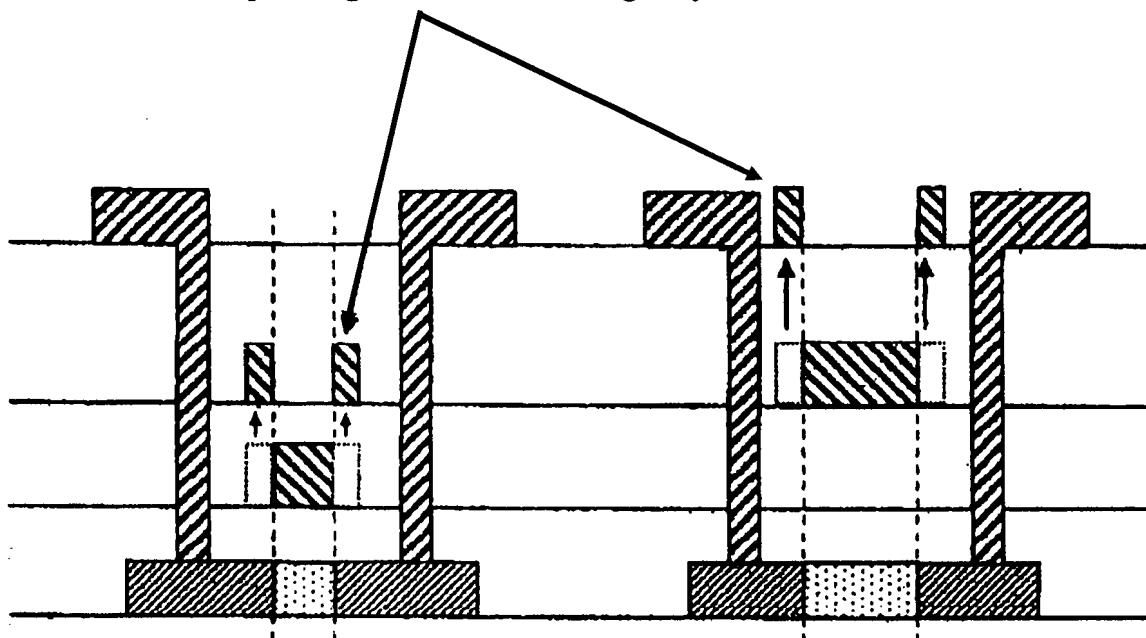
Furthermore, the Examiner alleges that it would have been obvious to include the recitation “wherein said second thin film transistor further comprises a third gate electrode formed between said second active layer and said second gate electrode with gate length shorter than that of the second gate electrode” in view of Nakamura. 03/13/07 Office Action, page 6. As an initial matter, Applicant notes that claim 29 was previously amended to recite the feature of “wherein said high voltage driving thin film transistor further comprises a third gate electrode driven at low voltage, wherein a gate length of said third gate electrode is shorter than a gate length of said second gate electrode...” Therefore, the Examiner’s rejection based on the recitation “wherein said second thin film transistor further comprises a third gate electrode formed between said second active layer and said second gate electrode with gate length shorter than that of the second gate electrode,” is irrelevant.

Moreover, the Examiner alleges that Nakamura teaches that the addition of a third electrode 13 between an active layer and an electrode 17 with gate/drain overlap so as to improve reliability and achieve low OFF state current. 03/13/07 Office Action, page 6. Applicant

respectfully disagrees and submits that such a teaching is not included in Nakamura, even in the English Abstract cited by the grounds of rejection. To the contrary, the Abstract of Nakamura teaches nothing more than that the electrode 17 is formed on the interlayer dielectric 14 above the gate electrode 13 so that the electrode 17 is arranged to overlap one part of a source / drain region or LDD regions.

Further, even if one of ordinary skill in the art were to apply the teachings of Nakamura to APA, one still would not arrive at the claimed invention. Quite to the contrary, even if the teachings of Nakamura were applied to APA, one skilled in the art would only produce the following construction

**Corresponding to electrode 17 taught by Nakamura**



As clearly shown by the figure above, it is clear that the electrode 17 taught in Nakamura cannot possibly act as a gate electrode as claimed. Moreover, the above structure is quite different than the claimed invention, an exemplary embodiment of which is shown in FIG. 5(c).

Finally, the grounds of rejection allege that the recitations “low voltage driving,” “high voltage driving,” “driven at low voltage,” and “driven at high voltage” are limitations on intended use rather than the thin film transistor itself. Applicant respectfully disagrees.

The recitations “driven at high voltage” and “driven at low voltage” require that the claimed second gate electrode and the third gate electrode are electrically independent from each other. In contrast, the electrode 17 taught by Nakamura is electrically connected to the gate electrode 13.

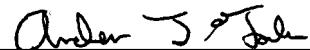
Therefore, the electrode 17 is not independent from gate electrode 13. Accordingly, Applicant submits that claim 29 is patentable over APA, Nakamura, and any combination thereof, for *at least* these reasons. Furthermore, Applicant submits that the dependent claims 13-14, 16, 30-34 are patentable over the cited references *at least* by virtue of their dependency on claim 29.

#### **IV. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
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CUSTOMER NUMBER

Date: June 13, 2007